



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

| APPLICATION NO.   | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------|------------------|
| 10/771,898  | 02/04/2004  | Dennis Piper         | AFF013USPT02        | 3891             |
| 23403   | 7590        | 02/21/2006           | EXAMINER            |                  |
| SHERRILL LAW OFFICES<br>4756 BANNING AVE<br>SUITE 212<br>WHITE BEAR LAKE, MN 55110-3205 |             |                      | LINDSEY, RODNEY M   |                  |
|   |             |                      | ART UNIT            | PAPER NUMBER     |
|   |             |                      | 3765                |                  |

DATE MAILED: 02/21/2006

Please find below and/or attached an Office communication concerning this application or proceeding.



UNITED STATES PATENT AND TRADEMARK OFFICE

C

Commissioner for Patents  
United States Patent and Trademark Office  
P.O. Box 1450  
Alexandria, VA 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 10/771,898  
Filing Date: February 04, 2004  
Appellant(s): PIPER ET AL.

**MAILED**  
**FEB 21 2006**  
**Group 3700**

---

Michael S. Sherrill  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed January 31, 2006 appealing from the Office action mailed November 10, 2005.

**(1) Real Party in Interest**

A statement identifying by name the real party in interest is contained in the brief.

**(2) Related Appeals and Interferences**

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**(3) Status of Claims**

The statement of the status of claims contained in the brief is correct.

**(4) Status of Amendments After Final**

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

**(5) Summary of Claimed Subject Matter**

The summary of claimed subject matter contained in the brief is correct.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The appellant's statement of the grounds of rejection to be reviewed on appeal is substantially correct. The changes are as follows: All rejections based on the reference to Nomiya (4,012,794) have been withdrawn.

**(7) Claims Appendix**

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(8) Evidence Relied Upon**

**(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

Claims 25-27 are rejected under 35 U.S.C. 102(b) as being anticipated by Lovell. Note Figures 1 and 2 and outer and inner layers 11, 12, diametrically opposed attachment points as at 14 effectively defining a pivot axis for frictional sliding of the outer layer 11 over the inner layer 12. With respect to claim 26 the headguard of Lovell defines right and left halves and relative to the pivot axis as claimed (see Figure 2). With respect to claim 27 note the position of the layers 11, 12 as shown in Figure 2 of Lovell with layer 11 biased or resting on layer 12, such position being equivalent to a standard position as claimed.

**(10) Response to Argument**

Contrary to appellant's arguments on page 4 of the brief drawn to the teachings of Lovell, Lovell at pins 14 as shown in Figure 2 teach two diametrically opposed points defining an axis about which the outer layer 11 will pivot. Appellant's assertion that the inner and outer layers of Lovell are prevented from pivoting as a result of multiple attachment points 14, and thus the headguard of Lovell is restricted to the outer layer lifting away from the inner layer, is not well taken. Such an assertion would require that the pins 14 completely fill the slots 13 (see Figure 1 of Lovell) to eliminate the possibility of lateral play between the pins and slots, and that the headguard of Lovell only respond to impacts from either an overhead direction or in a plane parallel to the axis defined by diametrically opposed pins 14, eliminating the accommodation of side impacts. Clearly the disclosure of Lovell is neither restrictive to a lift movement, nor to the pins completely filling the slots 13. The relative diametrical dimension of the head of the pins 14 to the remaining body of the pins 14 as shown in Figure 2 clearly suggest that the remaining

Art Unit: 3765

body of the pins 14 that lie within the slots 13 do not completely fill the slots 13. This relationship as shown between the pins 14 and slots 13 permits play between the pins 14 and slots 13 and would fail to restrict movement between the inner and outer layers to just a lift movement. Further the play between the pins 14 and slots 13 would readily accommodate lateral movement of the pins 14 relative to the slots 13 and therefore relative pivoting between the inner and outer layers. Lovell clearly desires that the outer layer move relative to the inner layer on impact of the outer layer (see column 1, lines 49-51), and that a use of a minimum of two pins be possible to effect the sliding connection between the layers 11, 12 (see column 1, lines 46-48). Furthermore, Lovell contemplates that other than an overhead impact be accommodated by the protective headguard (see column 4, lines 58-62). The ability of the body of the pins 14 to displace laterally as well as lengthwise relative to the slots 13 allows for pivoting as set forth in appellant's claim 25 as well as lift movement between the inner and outer layers of Lovell in order to absorb energy from various impact directions as contemplated by Lovell.

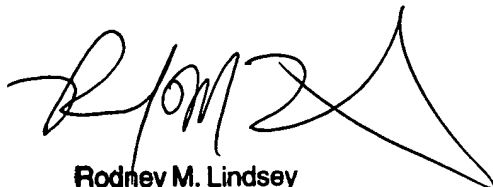
**(11) Related Proceeding(s) Appendix**

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

Art Unit: 3765

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,



Rodney M. Lindsey  
Primary Examiner

Conferees:

John Calvert



JOHN O. CALVERT  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 3700



Katherine Moran

KATHERINE MORAN  
PRIMARY EXAMINER